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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,330	12/20/2001	Susan M. Coatney	112056-0008	1593

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BOSTON, MA 02210

EXAMINER
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THAI, TUAN V

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/027,330

**Applicant(s)**

COATNEY ET AL.

**Examiner**

Tuan V. Thai

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 17-36 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**Part III DETAILED ACTION**

***Response to Amendment***

1. This office action is in response to Applicant's communication filed October 29, 2004. This amendment has been entered and carefully considered. Claims 1-6 and 8-16 are presented for examination. Claim 7 is allowed. Claims 17-36 have been cancelled.

2. Newly submitted claims 17-36 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The original claims 1-16 has separate utility and being directed to a network storage system and a method for storing and distributing data in a network storage system having a plurality of devices, and is not limited for use with a switch or a method for operating the switch according to the newly added group of claims, claims 17-36. Similarly, the switch and method for operating such switch of the newly added claims group can be used as a data routing circuitry in telecommunication system or computer network system, and is not restricted for use with the network storage system having plurality of devices of the original group of claims 1-16.

Since applicant has received an action on the merits for the

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originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 17-36 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. Applicant's arguments with respect to claims 1-16 have been considered but are not deemed to be persuasive.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. ' 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 and 9-14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Carusone, Jr. et al. (USPN: 5,157,667); hereinafter Carusone.

As per claims 1 and 9, Carusone discloses the invention as claimed including a method and apparatus for storing and distributing data in a network storage system having a plurality of devices 30-33 D (e.g. fig. 1) interconnected with one or more switches 10 (e.g. fig. 1, also see fig. 2 for switches 222 and 224) each switch having a memory associated with the port is

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known to be inherent in the system Carusone, since Carusone clearly discloses the storing of the link adapter IDs (LAID) already exists in the system described in the referenced copending patent application, the individual LAID numbers exists and only need to be stored locally at each unit (e.g. see column 9, lines 15-19); a plurality of file servers as being equivalently taught as host processors [212, 214 and 216] (e.g. see fig. 2); a plurality of disks D 30-33 connected to at least one of the one or more switches (e.g. see fig. 1), the further limitation of one of the plurality of file servers writing a set of data to the memory associated with one of the ports of one of the one or more switches is taught by Carusone as unit means of one of the host processor units for writing/exchanging and storing the link adapter IDs locally at each unit associated with one of the ports (e.g. see column 9, lines 13-19);

As per claims 2-3 and 10-11, Carusone discloses the data set is known as link adapter IDs (LAID) which is seen to be the combination of a given unit ID plus a unique number (the interface ID, port number/serial number, address) (e.g. see column 8, line 66 bridging column 9, line 2; also see column 8, lines 33 et seq.);

As per claims 4 and 12, the further limitation of the address further comprises a fully qualified network address is taught by Carusone to the extent that it is being claimed, for

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example, it should be noted that the system of Carusone operates and being implemented in the network environment (column 1, lines 12 et seq.) wherein each link-level in Carusone's system is assigned a unique address/link address or fully qualified network address as being claimed (e.g. see column 8, lines 33 et seq.);

As per claim 5, the further limitation of wherein the set of data further comprises identification of one or more disks that are offline and inaccessible to any of the plurality of devices is equivalent taught as the failure report which includes the link adapter IDs (LAID) of the link adapter or devices which are failure or offline (e.g. see column 9, lines 45 et seq., column 5, lines 19 et seq.);

As per claim 13, Carusone discloses the invention as claimed including a network storage system having one or more switches 10 having a plurality of ports P (e.g. see figure 1, column 7, lines 16-17) wherein each switch having a memory associated with the port is inherent in the system Carusone, since Carusone clearly discloses the storing of the link adapter IDs (LAID) already exists in the system described in the referenced copending patent application, the individual LAID numbers exists and only need to be stored locally at each unit (e.g. see column 9, lines 15-19); a plurality of file servers as being equivalently taught as host processors [212, 214 and 216] (e.g. see fig. 2); a plurality of disks D 30-33 connected to at least one of, the one or more

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switches (e.g. see fig. 1), the further limitation of one of the plurality of file servers writing an identification information to one of the ports of one of the switches in response to one of the disks/devices being offline (failure) is taught by Carusone as when a failure occurs, each unit writes or sends failure reports which includes the LAID of the link adapter that detected the failure to the central location thru one of the ports (e.g. see column 9, lines 33-51);

As per claim 14, Carusone discloses wherein the plurality of switches comprises fibre channel switches operatively interconnected to define a switching fabric; for example, staring at column 7, lines 58 et seq.; Carusone discloses link-connected systems may employ optical fibers instead of electrical conductors to interconnect optoelectronic components;

***Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 6, 8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carusone, Jr. et al. (USPN: 5,157,667); hereinafter Carusone.

As per claim 6, Carusone discloses the invention as claimed, detailed above with respect to claims 1 and 9; Carusone however does not particularly teach the identification further comprises a world wide name. First of all, it should be noted at Worldwide Web is commonly known, affordable and widely available in nowadays communication; accordingly it would have been obvious to one having ordinary skill in the art at the time the current invention was made to readily recognize and implement the data identification as a world wide name; in doing so, it would allow Carusone's system to server broader range of application, and thereby broadening one's potential market and saving investment capital.

As per claims 8 and 15, Carusone discloses the invention as claimed, detailed above with respect to claims 1 and 13; Carusone however does not particularly teach the memory associated with the port further comprises a Symbolic Port Name field. First of all, it should be noted that the switch port memory associated with the port for locally storing the individual link adapter IDs number is embedded and taught by Carusone (e.g. see column 9, lines 14-24); secondly, as known in the memory storage art, memory structure is made of array of memory cells having multiple



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lines, segments and/or fields for storing and identifying data stored within respective memory location. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to implement additional memory field, or Symbolic-port-name field as being claimed, for the purpose of port identification and port control function; in doing so, it would allow the host processors or other units within the system to quickly identify and access the ports using the symbolic-port-name field for conveying application information, therefore being advantageous.

As per claim 16; Carusone discloses the invention as claimed, detailed above with respect to claims 1, 9 and 13; Carusone however does not particularly disclose a computerreadable medium having of instructions to carry out the steps of claims 1, 9 and 13 to be implemented on a computer as being claimed in claim 16. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which windows can be installed onto other systems, which is a lot easier that running a long cable or hand typing the software onto

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another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Carusone's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of Carusone's program on other systems.

8. As to the remark; (a) Applicant's counsel argue that the references fail to teach or suggest *writing, by one of the plurality devices, a set of data to a memory associated with a port of one of the one or more switches, the memory being readable by all of the plurality of devices* (e.g. see page 19-21 of the amendment).

With respect to (a); Examiner wholeheartedly disagrees with the Applicant's counsel and would like to emphasize that the limitation of "writing a set of data to a memory associated with a port of one or more switches wherein the memory is readable by all of the plurality of devices" is clearly taught by Caruson, for example, Carusone discloses a plurality of devices 30-33 D (e.g. fig. 1) interconnected with one or more switches 10 (e.g. fig. 1, also see fig. 2 for switches 222 and 224) wherein each switch is known to embed within itself a local memory since the link adapter Ids is stored locally at each unit (e.g. see column 9, lines 18-19). In addition, the further concept of writing and reading data is equivalently taught as data (LAIDs) are being

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EXCHANGED, wherein the *storing* data operation is the same as the act of *writing* as being contended by Applicant counsel; specifically, Carusone clearly teaches *whenever any of the units in FIG. 2 is first interconnected to a neighboring unit, LAIDs are exchanged and stored* (e.g. see column 9, lines 14-15). By that rationale, Examiner believes that the limitation being contended "*writing, by one of the plurality devices, a set of data to a memory associated with a port of one of the one or more switches, the memory being readable by all of the plurality of devices*" is taught and anticipated by the reference of Carusone.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

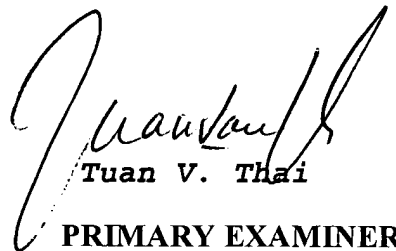
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be

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reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/January 18, 2005

A handwritten signature in black ink, appearing to read 'Tuan V. Thai', is written over the printed name.

Tuan V. Thai

**PRIMARY EXAMINER**

Group 2100